CLAIMS

I claim:

1.   A method for the display of graphical data between a server and a client, the graphical data representing a three-dimensional model of an object, the method comprising the steps of:

rendering the graphical data on a server to form a projection view image;

processing the projection view image on a server graphics accelerator to produce a scaled-down image having a transmission size less than a transmission size of the projection view image;

transmitting the scaled-down image from the server to the client;

processing the scaled-down image on a client graphics accelerator to substantially reproduce the projection view image; and

displaying the projection view image on the client.

2.   The method of claim 1, wherein processing the projection view image on the server graphics accelerator comprises:

reformatting the projection view image into a native processing format of the server;

binding the reformatted projection view image into a texture memory to form a texture map;

applying the texture map to a polygon having a predetermined scaling factor to form the scaled-down image; and

reformatting the scaled-down image into a native processing format of the client.

3. The method of claim 1, wherein the scaled-down image is transmitted from the server graphics accelerator to the client graphics accelerator through a network medium.

4. The method of claim 1, wherein the projection view image is substantially reproduced on the client graphics accelerator by scaling the scaled-down image to increase the transmission size of the scaled-down image.

5. The method of claim 1, wherein the projection view image is displayed on the client to a user using adaptive resolution.

6. The method of claim 5, wherein the adaptive resolution comprises adaptively setting end resolution from lossy to lossless factors.

7. The method of claim 6, wherein the projection view image is displayed using lossy factors while the graphical data is being manipulated.

8. The method of claim 6, wherein the projection view image is displayed using lossless factors while the graphical data is stationary.

9. The method of claim 8, wherein the projection view image is displayed in a one-to-one pixel resolution.

10. The method of claim 1, wherein the server and the client reside on a single computer.

11. The method of claim 1, wherein the server functions as a collaboration hub for the client.

12.   The method of claim 1, wherein the server and the client operate in a remote execution networking environment.

13.   The method of claim 1, wherein the client functions as a client collaboration hub.

14.   The method of claim 13, wherein the server is connected to the client by the client/collaboration hub.

15.   The method of claim 1, wherein the client functions as a client/ASP server.

16.   The method of claim 15, wherein the server is connected to the client by the client/ASP server.

17.   The method of claim 15, wherein the server is connected to the client by the client/ASP server and a client/collaboration hub.

18.   The method of claim 2, further comprising the steps of:

compressing the scaled-down image on the server to further reduce the transmission size of the scaled-down image;

establishing communication with the client; and

retrieving information from the client graphics accelerator to reformat the scaled-down image into the native processing format of the client.

19.   The method of claim 1, further comprising the steps of:

manipulating the graphical data to create a new projection view image;

processing the new projection view image on the server graphics accelerator

to produce a new scaled-down image having a transmission size less

than a transmission size of the new projection view image;

transmitting the new scaled-down image from the server to the client;

processing the new scaled-down image on the client graphics accelerator to

substantially reproduce the new projection view image; and

displaying the new projection view image on the client.